Media Update
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FAO
Press Release

FAO to release research findings on the causes of Smog in Punjab

Pakistan suffered one of the highest death tolls in the world from air pollution in 2015, when according to UN estimates thousands lost their lives because of the high level of fine particles in the air.

This phenomenon engulfs several cities in Punjab province particularly Lahore during the winter months and has evolved into a public health and economic emergency.

Responding to a request from Punjab government, Food and Agriculture Organization of the United Nations (FAO) under its project R-SMOG (Remote Sensing for Spatio-Temporal Mapping of Smog) has completed a first of its kind evidence based geospatial research which will contribute to findings on emissions and drivers of smog.

Satellite data of atmospheric pollutants are being widely used globally in the decision-making and environmental management activities of public, private sector and non-profit organizations.

The research findings to be released later this month in Lahore, were reviewed by the FAO global technical experts on information with a geographical component, methods and tools and validated by a wide array of Pakistani experts and institutions.

Welcoming participants at the workshop to validate the study key findings with representatives of the Ministry of Climate Change and Punjab department of agriculture, Ms. Minà Dowlatchahi, FAO Representative in Pakistan said:

"We remain committed to support government efforts to help devise appropriate strategies and action plans to tackle smog in Pakistan. The findings of R-SMOG study, provide scientific evidence of the causes of Smog, and the relationship between Smog and crop residue burning. The study will be instrumental in helping reduce the contribution of the agriculture sector towards the formation of Smog".

Smog is one of the several forms of air pollutants that cause harm to human functioning. It is normally a combination of several types of pollutants (nitrogen oxides, Sulphur oxides, aerosols, smoke or particulates, etc.) with fog. Industrial and vehicular emissions, and forest and crop burning are some of the common sources of these pollutants.

Formation of smog, however, is not dependent only on the presence or increase of these pollutants, but certain meteorological and weather conditions also help these pollutants suspend in the lower atmosphere because of which the pollutants form a dense visible layer of smog.

Using Satellite based measurements to monitor and identify the causes of increased levels of Smog, the findings identify the relationship between Smog and the practice of rice residue burning practices by farmers in the rice belt of Punjab. RSMOG not only includes the Spatio-temporal mapping of pollutants but also integrates the detailed climatological modelling to asses seasonal dynamics of Smog related to sectoral inventory of pollutants in Punjab, which makes it a comprehensive piece of research on Smog in Pakistan.

FAO is also carrying out water accounting in the Indus Basin using geospatial data and techniques. With more than 30 years of experience in development and use of geospatial databases, methods and tools FAO helps countries implement appropriate solutions and assists government efforts to create sustainable food systems.

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